The Wisconsin Collaborative for Diabetes Quality Improvement Project 2007

COLLABORATION

Members represent over 80 diverse partners including:

- health care and professional organizations, minority groups, public health, business coalitions, insurance and managed care organizations, voluntary and community-based organizations, academic centers, industry representatives, and consumers

Wisconsin Diabetes Mellitus Essential Care Guidelines, 2008 (one page)

For details and references for each specific area, as well as the disclaimer, please refer to the supporting documents and implementation tools in the full-text *Guidelines* available via the Internet at http://dhs.wisconsin.gov/health/diabetes/guidelines.htm or telephone: (608) 261-6855.

Concern	Care/Test	Frequency
General Recommendations for Care	♦ Perform diabetes-focused visit	*Type 1*: Every 3 months❖ *Type 2*: Every 3 – 6 months❖
	♦ Review management plan; assess barriers and goals	Each focused visit; revise as needed
	♦ Assess physical activity level	Each focused visit
	♦ Assess nutrition/weight/BMI/growth	Each focused visit
Self-Management Education	♦ Refer to diabetes educator, preferably a CDE in an ADA Recognized Program; curriculum to include the ten key areas of the national standards	At diagnosis, then every 6 – 12 months, or more as needed
Medical Nutrition Therapy	♦ Refer for medical nutrition therapy (MNT) provided by a registered dietitian (RD), preferably one who is also a CDE	At diagnosis or first referral to RD: 3 to 4 visits, completed in 3 to 6 months; then, annually. RD determines additional visits based needs/goals.
Glycemic Control	♦ Check A1c; goal: < 7.0% (always individualize) (ADA recognizes goal of < 7.0%) (AACE recognizes goal of ≤ 6.5%)	*Type 1*: Every 3 months❖ *Type 2*: Every 3 – 6 months❖
	♦ Review goals, medications, side effects, and frequency of hypoglycemia	Each focused visit
	♦ Assess self-blood glucose monitoring schedule	Each focused visit, 2 – 4 times/day, or as recommended
Cardiovascular Care	♦ Check fasting lipid profile Adult goals: Total Cholesterol < 200 mg/dL Triglycerides < 150 mg/dL HDL ≥ 40 mg/dL (men) HDL ≥ 50 mg/dL (women) Non-HDL (Cholesterol) < 130 mg/dL LDL < 100 mg/dL (optimal goal) LDL < 70 mg/dL (for **very** high risk)	*Children*: After age 2 but before age 10. Repeat annually if abnormal, repeat in 3 – 5 years if normal. *Adults*: Annually. If abnormal, follow NCEP III guidelines.
	♦ Start statin with ongoing lifestyle changes	Adults with CVD; Age > 40 yrs with one or more risk factors for CVD
	♦ Check blood pressure Adult goal: < 130/80 mmHg	*Children*: Each focused visit; follow National High Blood Pressure Education Program recommendations for Children and Adolescents *Adults*: Each focused visit
	♦ Assess smoking/tobacco use status	Each visit; (5As: Ask, Advise, Assess, Assist, Arrange)
	♦ Start aspirin prophylaxis (unless contraindicated)	Age > 40 yrs with diabetes; Age ≤ 40 yrs, individualize based on risk
Kidney Care	♦ Check albumin/creatinine ratio using a random urine sample, also called urine microalbumin/creatinine ratio	*Type 1*: At puberty or after 5 years duration, then annually *Type 2*: At diagnosis, then annually
	♦ Check serum creatinine and estimated GFR	At diagnosis, then annually
	♦ Perform routine urinalysis	At diagnosis, then as indicated
Eye Care	♦ Dilated eye exam by an ophthalmologist or optometrist	*Type 1*: If age ≥ 10 yrs, within 3 – 5 years of onset, then annually *Type 2*: At diagnosis, then annually; two exceptions exist
Neuropathies and Foot Care	♦ Assess/screen for neuropathy (autonomic/DPN)	*Type 1*: Five years after diagnosis, then annually *Type 2*: At diagnosis, then annually
	♦ Visual inspection of feet with shoes and socks off	Each focused visit; stress daily self-exam
	♦ Perform comprehensive lower extremity/foot exam (use monofilament and tuning fork)	At diagnosis, then annually
	♦ Screen for PVD (consider ABI)	At diagnosis, then annually
Oral Care	♦ Inspect gums and teeth for signs of periodontal disease	At diagnosis, then each focused visit
	♦ Dental exam by general dentist or periodontal specialist	At diagnosis, then every 6 months (if dentate) or every 12 months (if edentate)
Emotional/Sexual Health Care	♦ Assess emotional health; screen for depression	Each focused visit
	♦ Assess sexual health concerns	Each focused visit
Immunizations	♦ Provide influenza vaccine	Annually, if age ≥ 6 months
	♦ Provide pneumococcal vaccine	Once; then per Advisory Committee on Immunization Practices
Preconception and Pregnancy Care	♦ Provide preconception counseling/assessment	3 – 4 months prior to conception◈
	♦ Assess contraception/discuss family planning	At diagnosis and each focused visit◈
	♦ Assess risk for gestational diabetes mellitus (GDM)	At first prenatal visit (if high risk, screen immediately for GDM) ◈
	♦ Screen for GDM	At 24 – 28 weeks gestation or earlier if high risk◈
	♦ Screen for Type 2 diabetes post-GDM	At 6 – 12 weeks postpartum, then annually
Identification and Diagnosis of Pre-diabetes and Type 2 Diabetes	♦ Perform fasting plasma glucose test or oral glucose tolerance test	Test all adults ≥ age 45 yrs (see full *Guidelines* for testing of Type 2 diabetes in children and adolescents); if normal and person has no risk factors, retest in 3 years or less

❖ consider more often if A1c ≥ 7.0% and/or complications exist

◈ consider referring to provider experienced in care of women with diabetes during pregnancy

Mission

The Wisconsin Department of Health and Family Services, Diabetes Prevention and Control Program (DPCP) is dedicated to improving the health of people at risk for or with diabetes.

Forming and maintaining strong, active partnerships is key to achieving this mission.

The DPCP uses a statewide approach to improve the health of people at risk for or with diabetes by:

- Working with health systems
- Designing population-based community interventions and health communications
- Outreach to high-risk populations and communities to reduce disparities
- Conducting surveillance and evaluation of the burden of diabetes
- Coordination of efforts through the Wisconsin Diabetes Advisory Group and integration with other chronic disease programs

The Wisconsin Diabetes Advisory Group, convened by the Department of Health and Family Services, DPCP, provides the foundation for active partnerships across the state. Members include over 80 diverse partners, including health care and professional organizations, minority groups, and business coalitions, insurance and managed care organizations, voluntary and community-based organizations, academic centers, industry and public health representatives, and consumers.

The Wisconsin Collaborative Diabetes Quality Improvement Project is a joint partnership. Members include the DPCP, the University of Wisconsin Population Health Institute, MetaStar (Wisconsin's Quality Improvement Organization), the Department of Health and Family Services Division of Health Care Access and Accountability (Medicaid Program), health maintenance organizations (HMOs), and other health systems.

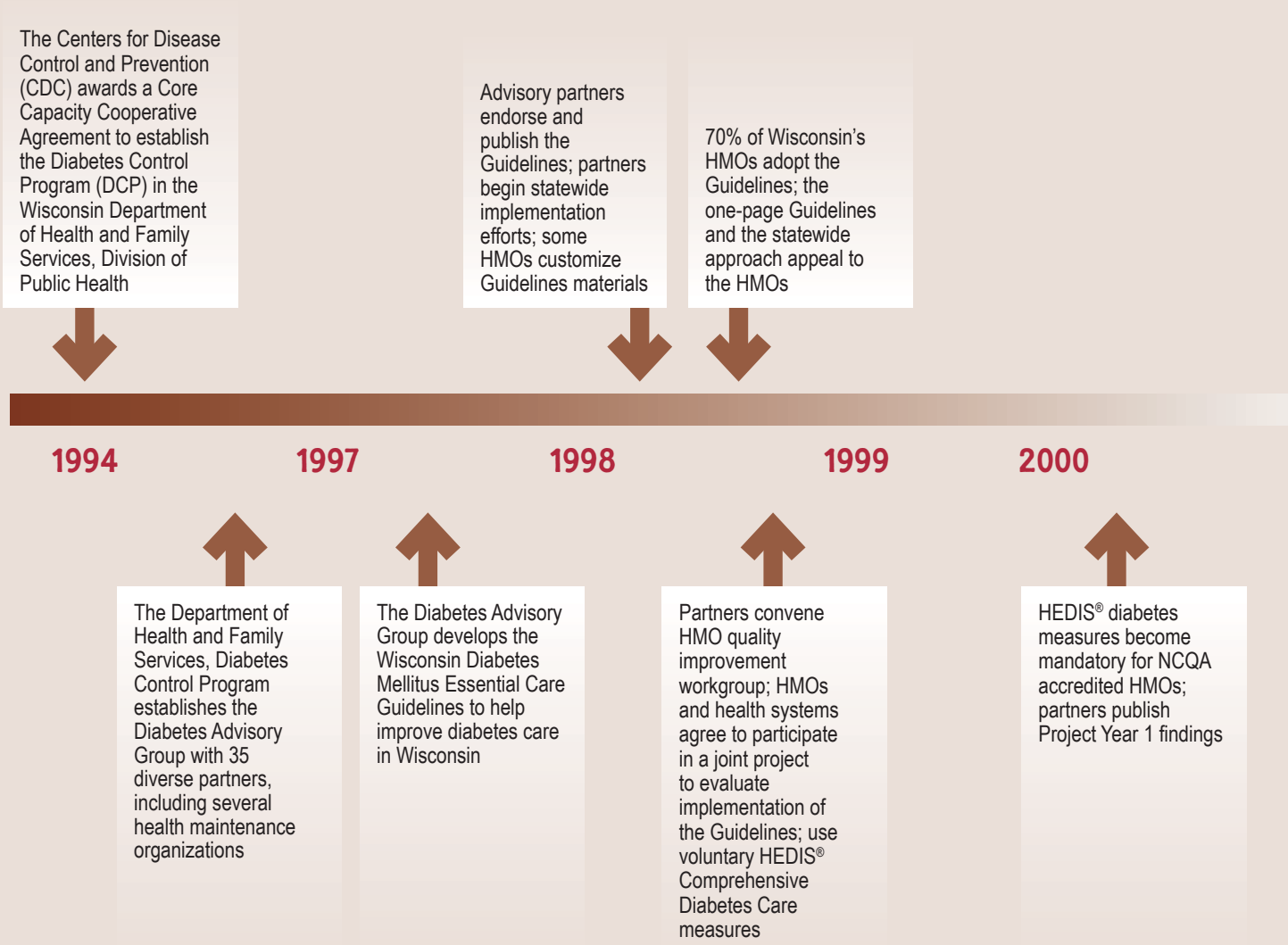
The Project was established in 1998 as a forum to:

- Evaluate and implement the Wisconsin Diabetes Mellitus Essential Care Guidelines
- Share resources, population-based strategies, and best practices
- Improve diabetes care through collaborative quality improvement initiatives

"The purpose of the HMO Collaborative is two-fold: improving the health of people in Wisconsin with diabetes, and early identification and treatment for those at risk for developing diabetes. Being part of the Collaborative means being part of the solution."

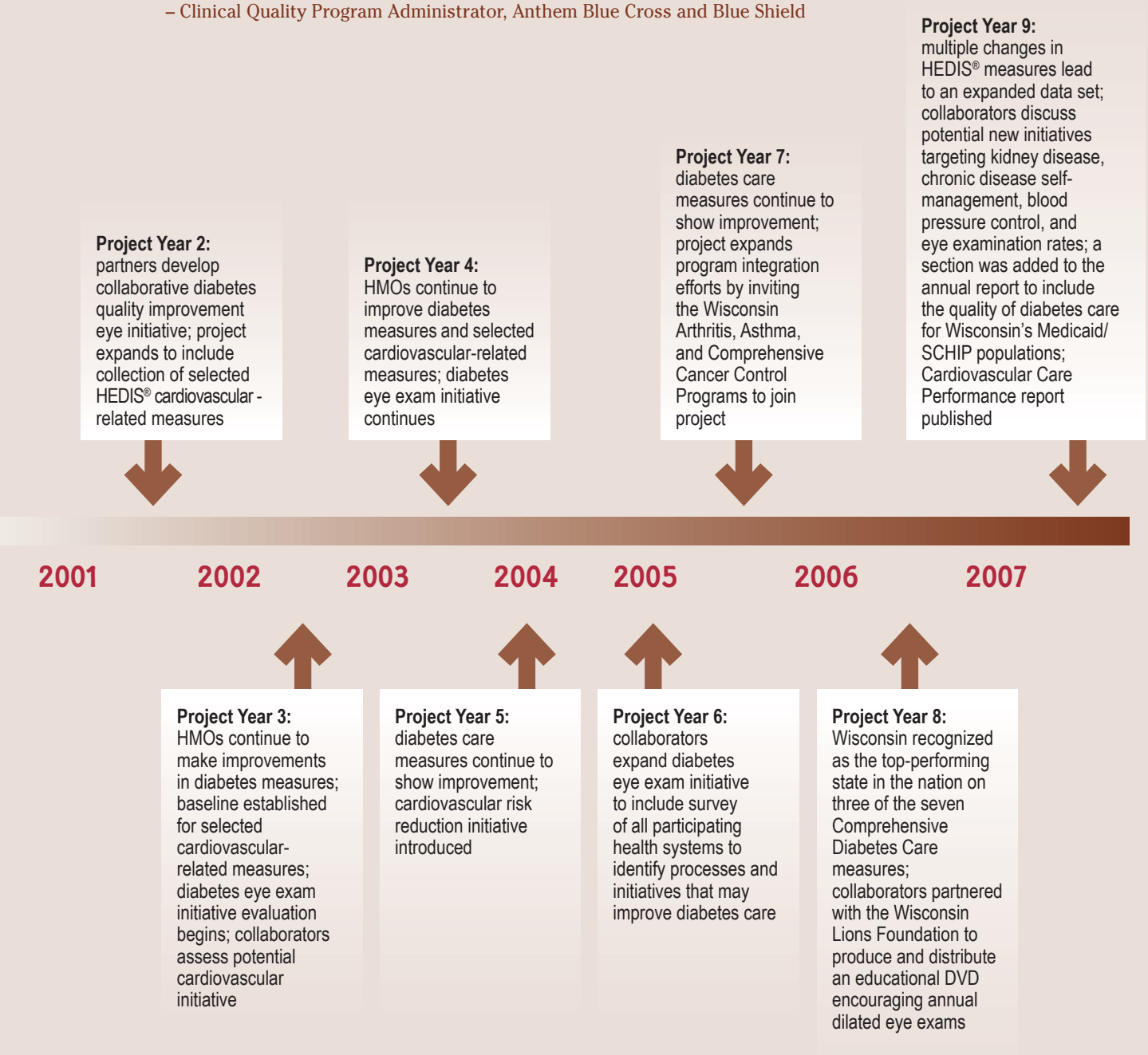
– Quality Care Coordinator, Unity Health Plans Insurance Corporation

Collaboration is Key



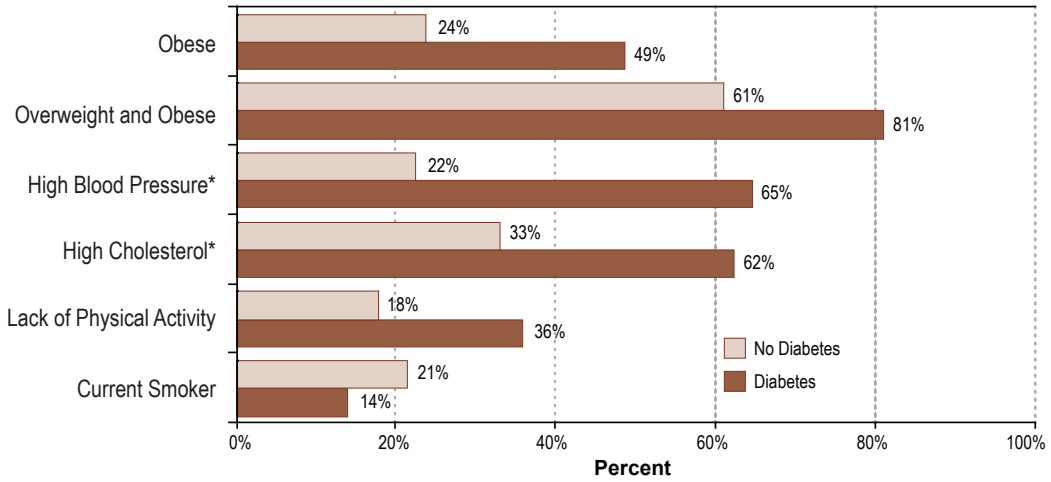
"Participating in the Wisconsin HMO Diabetes Collaborative provides an opportunity to positively impact Wisconsin's health care system at both the community and individual levels. From the leadership of the dedicated staff at the Wisconsin Diabetes Prevention and Control Program to the Collaborative's public and private partners, our diverse team comes together with one main goal in mind: to improve the quality of diabetes health care across the state, and thus the quality of life for people living with this serious and complicated disease."

– Clinical Quality Program Administrator, Anthem Blue Cross and Blue Shield



Diabetes
Facts and Figures

FIGURE 1: Percent of Wisconsin Adults with Risk Factors Related to Diabetes, 2005-2006



Source: Wisconsin Behavioral Risk Factor Survey, 2005-2006

Overweight is defined as Body Mass Index (BMI) 25.0 - 29.9 kg/m^2 and obese is defined as BMI ≥ 30.0 kg/m^2

* Data are from 2005

Diabetes is Serious

People with diabetes are at increased risk of numerous complications, including cardiovascular disease, stroke, kidney failure, eye disease, nerve disease, and amputations. These complications can be disabling and lead to substantial morbidity, mortality, and cost. Many complications can be slowed or delayed by an aggressive program of screening, early detection, and optimal treatment.

Diabetes is Common

Diabetes affects an estimated 419,870 adults in Wisconsin, or 9.6% of the population. Some groups of people are at higher risk for developing diabetes. African American, American Indian, and older populations often have the highest rates of diabetes (Source: The 2008 Burden of Diabetes in Wisconsin).

Diabetes is Costly

The cost of diabetes in Wisconsin is staggering. In 2007, estimated direct costs for diabetes were $3.46 billion and estimated indirect costs were $1.73 billion, totaling $5.19 billion (Source: The 2008 Burden of Diabetes in Wisconsin). In 2007, estimated medical expenditures for people with diabetes averaged $11,744 per person, compared with $2,935 per person without diabetes. After correcting for demographic factors, medical expenditures for people with diabetes were approximately 2.3 times the expenditures of those without diabetes (Source: Diabetes Care. 2008;31(3):1-20).

Diabetes is Controllable

Much of the morbidity, mortality, and cost associated with diabetes is due to potentially preventable long-term complications. Management of risk factors can lead to better outcomes. Complications of diabetes include eye disease, kidney failure, cardiovascular disease, stroke, nerve damage, and amputations. Control of blood glucose, blood pressure, and cholesterol are essential and can decrease the risk of developing these complications. Regular physical activity and a healthy diet are also crucial for both prevention of Type 2 diabetes and treatment of all types of diabetes to reduce risk of complications.

Project Description

The Wisconsin Collaborative Diabetes Quality Improvement Project

Goal: To improve the quality of diabetes care in Wisconsin's HMOs

Three Project Components

Evaluate implementation of the Wisconsin Diabetes Mellitus Essential Care Guidelines

- To assess Guideline implementation in Wisconsin's commercially-insured population, collaborators selected the Health Plan Employer Data and Information Set (HEDIS®) Comprehensive Diabetes Care measures, developed by the National Committee for Quality Assurance (NCQA).
- The Project also collects other chronic disease-related HEDIS® data. Collaborators partnered to begin providing data from selected cardiovascular-related measures in 2000, select cancer screening measures in 2001, and select asthma care measures in 2004.
- Additionally, collaborators are interested in the quality of diabetes care received by people covered by Medicaid/ State Children's Health Insurance Program (SCHIP) in Wisconsin. Medicaid Encounter Data-Driven Improvement Core Measure Set (MEDDIC-MS) measures are used to evaluate care received by this population.
- While MEDDIC-MS and HEDIS® measures target similar outcomes, direct comparisons ***cannot*** be made between them due to differences in measure specifications, population characteristics, and data collection methods.
- Despite differences between HEDIS® and MEDDIC-MS measures, both sets of measures show improvement in the quality of diabetes care in Wisconsin.

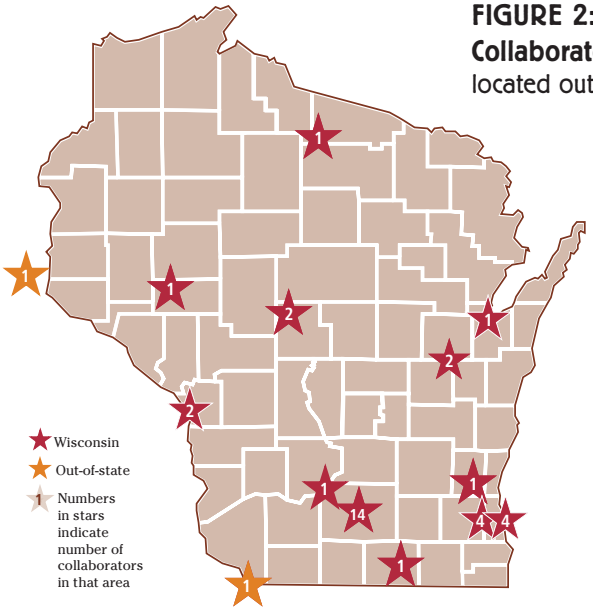


FIGURE 2: Locations of Project Collaborators, Including those located outside Wisconsin - 2007

Share resources, population-based strategies, and best practices

- The Department of Health and Family Services, Diabetes Prevention and Control Program maintains a system for ongoing communication with the HMOs.
- Collaborators meet quarterly to discuss issues and strategies, such as quality improvement activities, data collection and analysis, and plans for future initiatives.

Improve diabetes care through collaborative quality improvement initiatives

- In 2001, collaborators developed their first statewide quality improvement initiative, the Diabetes Eye Care Initiative, to increase eye exam rates and improve reporting of results and recommendations.
- In 2006, collaborators partnered with the Wisconsin Lions Foundation to create and distribute approximately 25,000 copies of an educational DVD about annual dilated eye exams. The Diabetes Eye Care Initiative continues with quality improvement activities including distribution of a new teaching tool that explains diabetic eye disease.
- Other initiatives focus on expanding the scope of diabetes self-management programs, improving rates of blood pressure control, and increasing laboratory reporting of eGFR (a measure of kidney function).

Measuring the Quality of Care for Wisconsin's Commercially-Insured Population: HEDIS®

This section of the report examines the quality of care provided to Wisconsin's commercially-insured population. This population has private insurance, paid for by the individual, an employer, or others.

Collaborators chose HEDIS® measures to evaluate the quality of care in Wisconsin's commercially-insured population.

- HEDIS® data were readily available, since most plans were already collecting it for their commercially-insured populations. In 2005, collaborators submitted data for nearly 100% of Wisconsin's commercially-insured population.
- Standardized measure definitions allow comparison of group data with regional and national data to facilitate examination of trends in group performance.

HEDIS® data from the commercially-insured population and MEDDIC-MS data from the Medicaid managed care population ***cannot*** be directly compared.

- Differences in the two populations' demographics (such as socioeconomic status) may affect the health outcomes of patients in the two groups. To make valid comparisons between the two groups, these differences must be controlled for.
- There are also differences in data collection methods. HEDIS® data is collected using administrative data (from electronic sources, such as claims data) or hybrid data (which includes chart review). MEDDIC-MS data collection is entirely electronic. These different data collection methods may affect comparisons between the two groups.

For more information on HEDIS® and MEDDIC-MS methods, see the Technical Specifications section at the end of the report.

Results: HEDIS® Comprehensive Diabetes Care Measures

The following HEDIS® data is compiled for collaborating HMOs and is reported by the University of Wisconsin Population Health Institute.

Table 1 summarizes performance on HEDIS® Comprehensive Diabetes Care measures for care provided in 2006.

- **Group Mean:** This is the mean percentage of all participating plans for care provided in 2006. It is calculated as the unweighted average of each plan's percentage.
- **Direction of Trend:** This states whether the group mean increased, decreased, or stayed the same from 2005 to 2006.
  - **Not trendable Measures:** Measures are not trendable when no conclusions can be made regarding the direction of trend between 2005 and 2006 due to changes in measure specifications.
- **Variation among Plans:** The amount of variation among plans' performance is shown in each measure's range. Range is the difference between the highest and lowest percentages for each measure. A smaller range is desired, because it means less variation among plans.
- **National Mean:** This is the nationwide mean percentage for care provided in 2006.
- **Group vs. National Mean:** This column compares

TABLE 1: Performance on HEDIS® Comprehensive Diabetes Care Measures (care provided in 2006)

	Group Mean (2006)	Direction of Trend (2005-2006)	Variation among Plans*	National Mean (2006)	Group vs. National Mean
HbA1c Poor Control (>9.0%) (Lower percentage desired)	21%	No change	**Medium** Range=24%	30%	**Better** than National
HbA1c Good Control (<7.0%)	44%	New measure	**Medium** Range=17%	42%	**Better** than National
HbA1c Testing Performed	92%	No change	**Low** Range=6%	88%	**Better** than National
Eye Exam Performed	69%	No change	**High** Range=30%	55%	**Better** than National
LDL-Cholesterol Screening Performed	84%	Not trendable	**Low** Range=9%	83%	**Better** than National
LDL-Cholesterol Control <100 mg/dL	48%	Not trendable	**Low** Range=14%	43%	**Better** than National
Blood Pressure Control <140/90 mmHg	69%	New measure	**High** Range=27%	61%	**Better** than National
Blood Pressure Control <130/80 mmHg	38%	New measure	**Medium** Range=17%	30%	**Better** than National
Medical Attention for Nephropathy	85%	New measure	**Low** Range=11%	80%	**Better** than National

* Categories are: Low <15%, Medium 15-24%, and High ≥25%.

Results: HEDIS® Comprehensive Diabetes Care Measures

continued

Table 2 shows the group mean for each measure, by year. For these measures, the group mean is calculated as the unweighted average of all participating plans in each given year. The unweighted average is calculated as the sum of the plans' individual percentages for that measure, divided by the number of participating plans that year.

TABLE 2: Group Means, HEDIS® Comprehensive Diabetes Care Measures (care provided in 1999-2006)

	1999	2000	2001	2002	2003	2004	2005	2006
HbA1c Poor Control (>9.5%)*	29%	26%	22%	19%	---	---	---	---
HbA1c Poor Control (>9.0%)*	---	---	---	---	22%	21%	21%	21%
HbA1c Good Control (<7.0%)	---	---	---	---	---	---	---	44%
HbA1c Testing Performed	84%	88%	89%	90%	91%	92%	92%	92%
Eye Exam Performed	63%	66%	63%	66%	63%▽	64%	69%	69%
LDL-Cholesterol Screening Performed	70%	78%	81%	88%	90%	92%	94%	84%▽
LDL-Cholesterol Control <130 mg/dL	44%	51%	57%	65%	67%	70%	74%	---
LDL-Cholesterol Control <100 mg/dL	---	---	---	---	---	47%	51%	48%▽
Blood Pressure Control <140/90 mmHg	---	---	---	---	---	---	---	69%
Blood Pressure Control <130/80 mmHg	---	---	---	---	---	---	---	38%
Nephropathy Monitoring	45%	53%	61%	64%	56%▽	61%	64%	---
Medical Attention for Nephropathy	---	---	---	---	---	---	---	85%

*Lower percentage desired for HbA1c Poor Control measures.

▽Measure changes: Eye Exam Performed (2003), Nephropathy Monitoring (2003), LDL-Cholesterol Screening (2006), and LDL-Cholesterol Control <100 mg/dL (2006).

Figures 3a-3e and 4a-4b, on the following pages, illustrate the group mean percentage (black line) and each individual plan's percentage (blue markers). Breaks in the black line indicate years when measure specifications changed significantly. It is important to note that the relative performance of each plan varies from year to year and from measure to measure. For example, the highest performer in 2005 was not necessarily the highest performer in 2006.

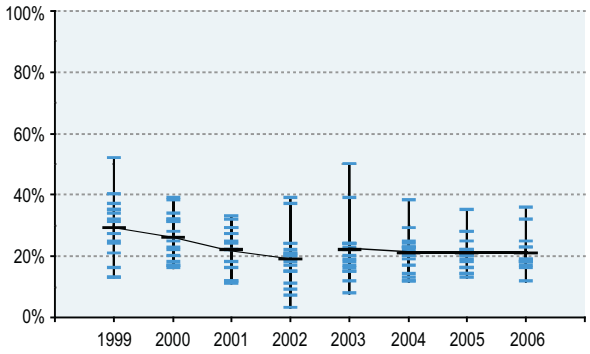
Results: HEDIS® Comprehensive Diabetes Care Measures

continued

Figures 3a-3e represent current HEDIS® Comprehensive Diabetes Care measures with more than one year of data available to graph.

FIGURES 3a-3e: Percent of Patients Receiving HEDIS® Comprehensive Diabetes Care Measures - Current Measures (care provided in 1999-2006)

Figure 3a: HbA1c Poor Control*



*Lower percentage desired

Figure 3b: HbA1c Testing Performed

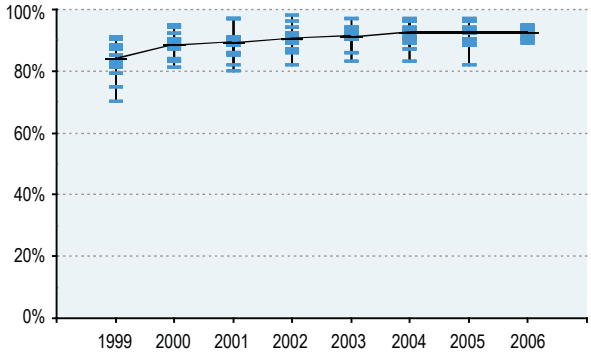


Figure 3c: Eye Exam Performed

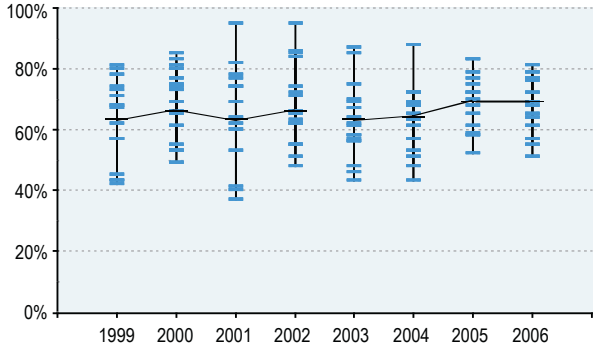


Figure 3d: LDL-Cholesterol Screening Performed

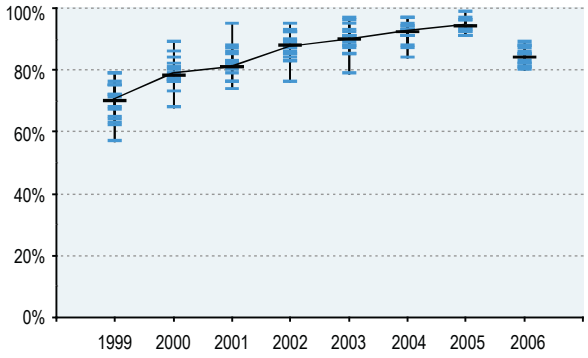
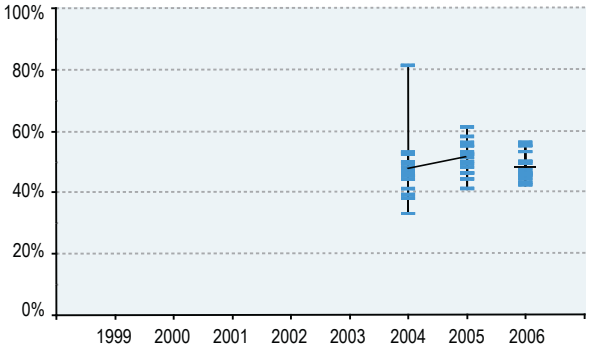


Figure 3e: LDL-Cholesterol Control <100mg/dL



Results: HEDIS® Comprehensive Diabetes Care Measures

continued

Figures 4a-4b represent historical data from retired HEDIS® Comprehensive Diabetes Care measures. The LDL-Cholesterol Control <130 mg/dL measure was retired in 2006 and replaced by the LDL-Cholesterol Control <100 mg/dL measure. The Nephropathy Monitoring measure was retired in 2006 and replaced by the Medical Attention for Nephropathy measure.

FIGURES 4a-4b: Percent of Patients Receiving HEDIS® Comprehensive Diabetes Care Measures – Retired Measures (care provided in 1999-2005)

Figure 4a: LDL-Cholesterol Control <130mg/dL

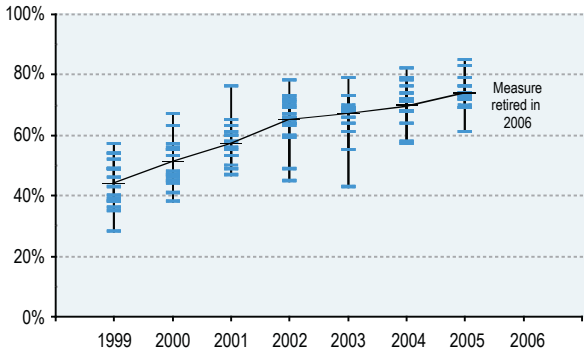


Figure 4b: Nephropathy Monitoring

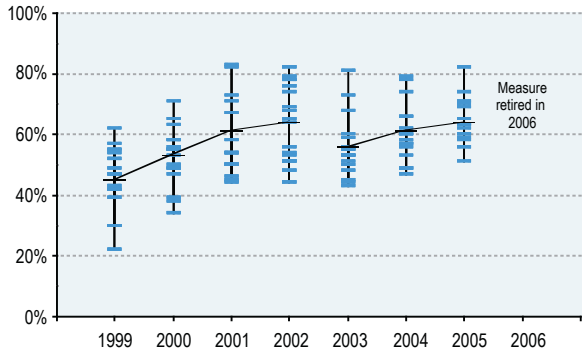
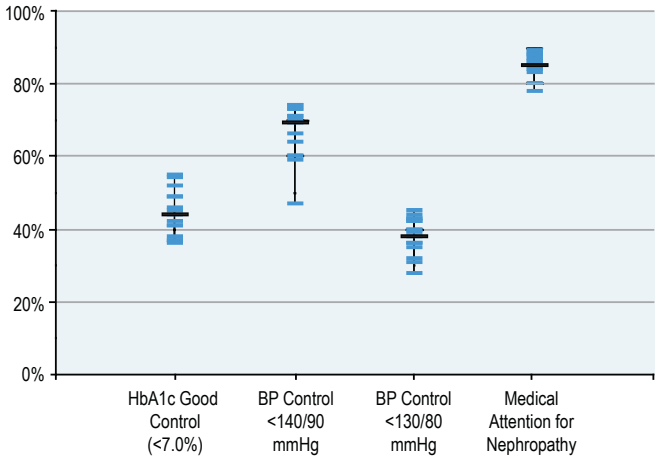


Figure 5 represents new HEDIS® Comprehensive Diabetes Care Measures. For these measures, only data from care provided in 2006 is available. Figure 5 illustrates the group mean percentage (black markers) and each individual plan's percentage (blue markers) for each new measure.

FIGURE 5: Percent of Patients Receiving HEDIS® Comprehensive Diabetes Care Measures – New Measures (care provided in 2006)



Results: Selected HEDIS® Cardiovascular Care Measures

The following HEDIS® data is compiled for collaborating HMOs and is reported by the University of Wisconsin Population Health Institute.

People with diabetes are at increased risk for heart disease and stroke. Management of cardiovascular risk factors, such as blood pressure and cholesterol, is a crucial part of the treatment of diabetes. Cardiovascular disease and diabetes are also both affected by lifestyle factors such as obesity, unhealthy diet, and physical inactivity. Initiatives targeting cardiovascular risk factors often benefit people with diabetes. Due to the relationship between cardiovascular disease and diabetes, the Collaborative also collects and analyzes data from selected HEDIS® Cardiovascular Care measures. The population for these measures includes both people with and without diabetes.

Table 3 summarizes performance on selected HEDIS® Cardiovascular Care measures for care provided in 2006.

- **Group Mean:** This is the mean percentage of all participating plans for care provided in 2006. It is calculated as the unweighted average of each plan's percentage.
- **Direction of Trend:** This states whether the group mean increased, decreased, or stayed the same from 2005 to 2006.
  - **Not trendable Measures:** Measures are not trendable when no conclusions can be made regarding the direction of trend between 2005 and 2006 due to changes in measure specifications.
- **Variation among Plans:** The amount of variation among plans' performance is shown in each measure's range. Range is the difference between the highest and lowest percentages for each measure. A smaller range is desired, because it means less variation among plans.
- **National Mean:** This is the nationwide mean percentage for care provided in 2006.
- **Group vs. National Mean:** This column compares

TABLE 3: Performance on Selected HEDIS® Cardiovascular Care Measures (care provided in 2006)

	Group Mean (2006)	Direction of Trend (2005-2006)	Variation among Plans*	National Mean (2006)	Group vs. National Mean
Blood Pressure Control <140/90 mmHg (18-45 years)	63%	Not trendable	**Medium** Range=19%	Not available	Not available
Blood Pressure Control <140/90 mmHg (46-85 years)	64%	Not trendable	**Medium** Range=16%	Not available	Not available
Blood Pressure Control <140/90 mmHg (18-85 years)	64%	Not trendable	**Medium** Range=17%	60%	**Better** than National
Beta-blocker Treatment	96%	Down 1%◆	**Medium** Range=19%	98%	**Worse** than National
Persistence of Beta-blocker Treatment	73%	Up 4%◆	**Low** Range=14%	73%	**Same as** National
LDL-Cholesterol Screening for Patients with Cardiovascular Conditions	89%	New measure	**Medium** Range=16%	88%	**Better** than National
LDL-Cholesterol Control <100 mg/dL for Patients with Cardiovascular Conditions	63%	New measure	**Medium** Range=20%	57%	**Better** than National

* Categories are: Low <15%, Medium 15-24%, and High ≥25%.
◆ These are relative percentages.

Results: Selected HEDIS® Cardiovascular Care Measures

continued

Table 4 shows the group mean for each measure, by year. For these measures, the group mean is calculated as the unweighted average of all participating plans in each given year. The unweighted average is calculated as the sum of the plans' individual percentages for that measure, divided by the number of participating plans that year.

TABLE 4: Group Means, Selected HEDIS® Cardiovascular Care Measures (care provided in 2000-2006)

	2000	2001	2002	2003	2004	2005	2006
Blood Pressure Control <140/90 (18-45 years)	---	---	---	---	---	---	66%
Blood Pressure Control ≤140/90 (46-85 years)	54%	58%	62%	64%	69%	70%	---
Blood Pressure Control <140/90 (46-85 years)	---	---	---	---	---	---	64%
Blood Pressure Control <140/90 (18-85 years)	---	---	---	---	---	---	64%
Beta-blocker Treatment	90%	96%	97%	96%	97%	97%	96%
Persistence of Beta-blocker Treatment	---	---	---	---	---	70%	73%
LDL-Cholesterol Screening after Acute Cardiovascular Event	80%	81%	84%	83%	84%	Not reported	---
LDL-Cholesterol Screening for Patients with Cardiovascular Conditions	---	---	---	---	---	---	89%
LDL-Cholesterol Control <100 mg after Acute Cardiovascular Event	---	---	---	---	57%	---	---
LDL-Cholesterol Control <100 mg/dL for Patients with Cardiovascular Conditions	---	---	---	---	---	---	63%
LDL-Cholesterol Control <130 mg/dL after Acute Cardiovascular Event	67%	69%	70%	70%	74%	Not reported	---

Results: Selected HEDIS® Cardiovascular Care Measures

continued

Figures 6a-6c and 7a-7b illustrate the group mean percentage (black line) and each individual plan's percentage (green markers). Breaks in the black line indicate years when measure specifications changed significantly. It is important to note that the relative performance of each plan varies from year to year and from measure to measure. For example, the highest performer in 2005 was not necessarily the highest performer in 2006.

Figures 6a-6c represent current selected HEDIS® Cardiovascular Care measures with more than one year of data available to graph.

FIGURES 6a-6c: Percent of Patients Receiving Selected HEDIS® Cardiovascular Care Measures – Current Measures (care provided in 2000-2006)

Figure 6a: Beta-blocker Treatment

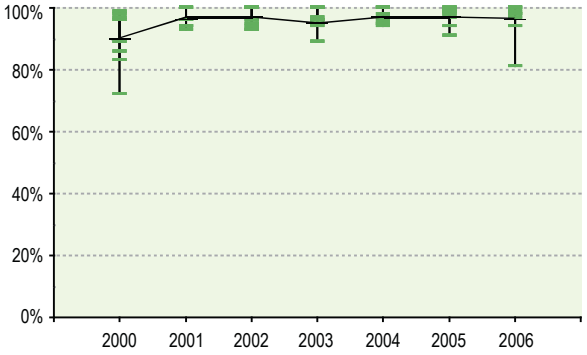


Figure 6b: Persistence of Beta-blocker Treatment

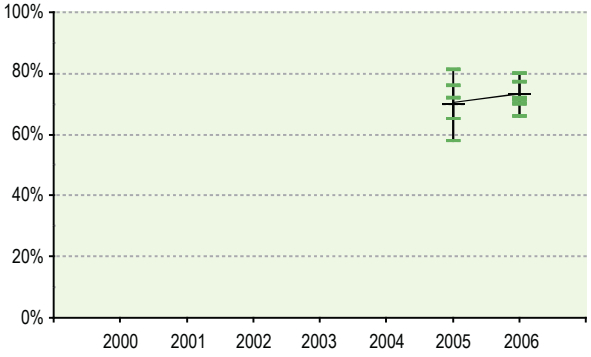
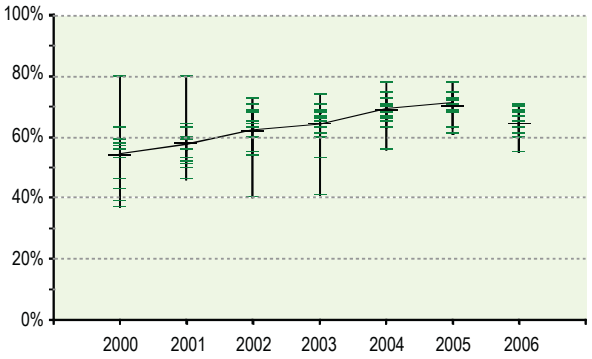


Figure 6c: Blood Pressure Control (46-85 years)



Results: Selected HEDIS® Cardiovascular Care Measures

continued

Figures 7a-7b represent historical data from retired selected HEDIS® Cardiovascular Care measures.

FIGURES 7a-7b: Percent of Patients Receiving Selected HEDIS® Cardiovascular Care Measures – Retired Measures (care provided in 2000-2004)

Figure 7a: LDL-Cholesterol Screening after Acute Cardiovascular Event

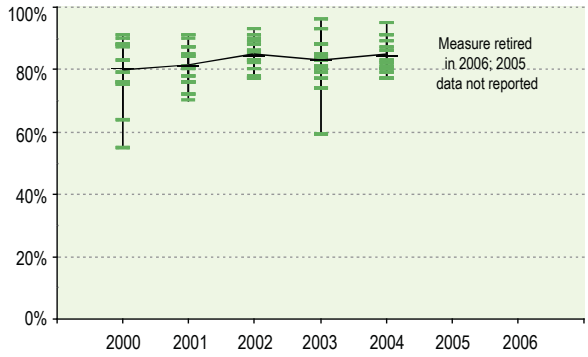


Figure 7b: LDL-Cholesterol Control <130 mg/dL after Acute Cardiovascular Event

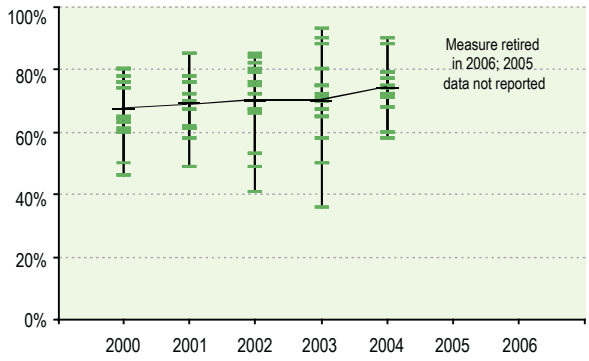
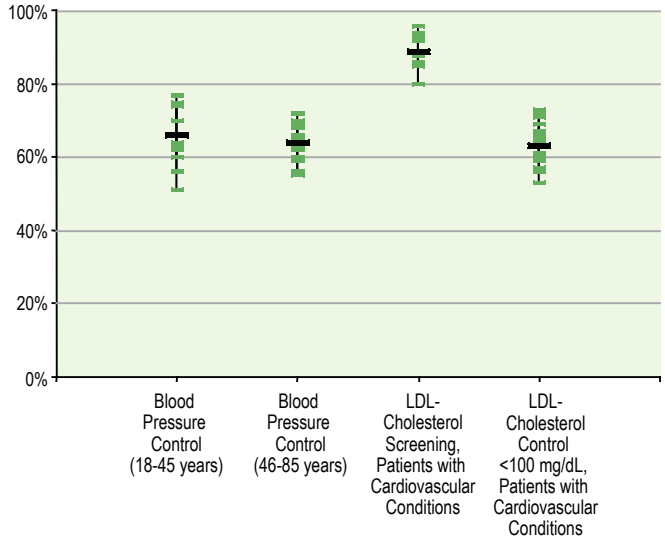


Figure 8 represents new selected HEDIS® Cardiovascular Care measures. For these measures, only data from care provided in 2006 is available. Figure 8 represents the group mean percentage (black markers) and each individual plan's percentage (green markers) for each new measure.

FIGURE 8: Percent of Patients Receiving Selected HEDIS® Cardiovascular Care Measures – New Measures (care provided in 2006)



Measuring the Quality of Care
For Wisconsin's Medicaid Managed Care Population: MEDDIC-MS Measures

This section of the report examines the quality of care provided to Wisconsin's Medicaid managed care and State Children's Health Insurance Program (SCHIP) populations. These populations have health coverage paid for with state and federal funding. Eligibility for Medicaid/SCHIP coverage is based on income and/or disability.

Wisconsin uses Medicaid Encounter Data-Driven Improvement Care Measure Set (MEDDIC-MS) data to evaluate the quality of care in the Medicaid managed care population.

- MEDDIC-MS data is readily available, since it is already collected for all of Wisconsin's Medicaid managed care plans.
- Standardized measure definitions allow comparison of individual plans' data with group data to facilitate examination of trends in group performance.

MEDDIC-MS data from the Medicaid managed care population and HEDIS® data from the commercially-insured population ***cannot*** be directly compared.

- Differences in the two populations' demographics (such as socioeconomic status) may affect the health outcomes of patients in the two groups. To make valid comparisons between the two groups, these differences must be controlled for.
- There are also differences in data collection methods. MEDDIC-MS data collection is entirely electronic. HEDIS® data is collected using administrative data (from electronic sources, such as claims data) or hybrid data (which includes chart review). These different data collection methods may affect comparisons between the two groups.

For more information on HEDIS® and MEDDIC-MS methods, see the Technical Specifications section at the end of the report.

Results: MEDDIC-MS Diabetes Care Measures

The following MEDDIC-MS data is compiled for collaborating HMOs and is reported by the Department of Health and Family Services.

Table 5 summarizes performance on MEDDIC-MS Diabetes Care measures for care provided in 2006.

- **Group Mean:** This is the mean percentage of all participating plans for care provided in 2006. It is calculated as the unweighted average of each plan's percentage.
- **Direction of Trend:** This states whether the group mean increased, decreased, or stayed the same from 2005 to 2006. Increasing trends reflect improvement for both measures.
- **Variation among Plans:** The amount of variation among plans' performance is shown in each measure's range. Range is the difference between the highest and lowest percentages for each measure. A smaller range is desired, because it means less variation among plans.

TABLE 5: Performance on MEDDIC-MS Diabetes Care Measures (care provided in 2006)

	Group Mean (2006)	Direction of Trend (2005-2006)	Variation among Plans*
HbA1c Testing Performed	84%	Up 1%◆	**High** Range = 37%
Lipid Profile Testing Performed	70%	Up 4%◆	**High** Range = 25%

* Categories are: Low <15%, Medium 15-24%, and High ≥25%.
◆These are relative percentages.

Table 6 shows the group mean for each measure, by year. For these measures, the group mean is calculated for aggregate, program-wide data. The aggregate mean is calculated as the percentage of all plans' participants who meet measure specifications.

TABLE 6: Group Means, MEDDIC-MS Diabetes Care Measures (care provided in 2000 and 2002-2006)*

	2000	2002	2003	2004	2005	2006
HbA1c Testing Performed	71%	75%	78%	82%	83%	84%
Lipid Profile Testing Performed	46%	56%	62%	67%	67%	70%

* No 2001 data is available (due to timing of full implementation of MEDDIC-MS and MEDDIC-MS SSI in 2002).

Results: MEDDIC-MS Diabetes Care Measures

continued

Figures 9a-9b illustrate the group mean percentage (black line) and each individual plan's percentage (red markers). It is important to note that the relative performance of each plan varies from year to year and from measure to measure. For example, the highest performer in 2005 was not necessarily the highest performer in 2006.

Figures 9a-9b represent current MEDDIC-MS Diabetes Care measures (for adults, 18-75 years).

FIGURES 9a-9b: Percent of Patients Receiving MEDDIC-MS Diabetes Care Measures (care provided in 2000 and 2002-2006)*

Figure 9a: HbA1c Testing Performed

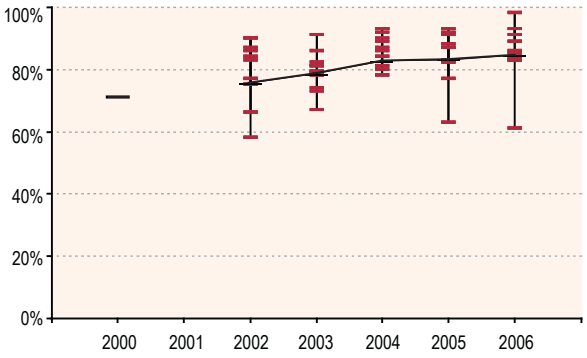
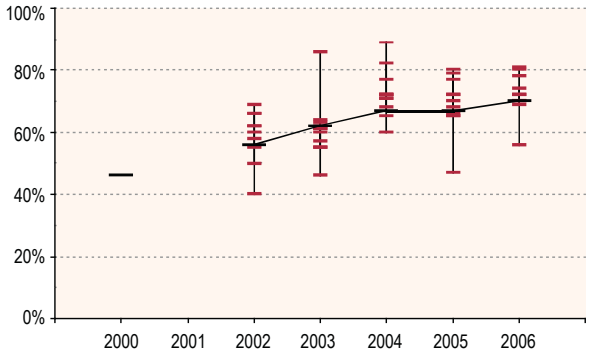


Figure 9b: Lipid Profile Testing Performed



* No 2001 data is available (due to timing of full implementation of MEDDIC-MS and MEDDIC-MS SSI in 2002).

Conclusions

Project Advantages

- Over time, collective performance has improved on diabetes and cardiovascular-related care measures in Wisconsin. This improvement is seen in both the commercially-insured and Medicaid/SCHIP populations.
- People with diabetes and/or cardiovascular disease in Wisconsin continue to benefit from improvements in care.
- Collaborators use data reports to discuss barriers, problem-solve, and identify potential quality improvement initiatives.
- HMOs receive local benchmarking data, reports to share with managers and community stakeholders, and a forum to address mutual concerns and best practices.
- The Diabetes Prevention and Control Program receives valuable data for surveillance and evaluation, as well as vital support toward their mission to improve the health of people at risk for or with diabetes.
- Communication and sharing forums help:
  - Distribute new research and resources
  - Promote dynamic brainstorming and project planning
  - Coordinate sharing of quality improvement strategies
- Wisconsin's diverse group of HMOs demonstrate their willingness to collaborate with each other, community partners, and the state health department on quality improvement projects. Collaborators remain motivated and committed to the Project's success.

Future Directions

- **Eye Exam Initiative:** The Collaborative worked together with the Wisconsin Lions Foundation to produce and distribute an educational DVD on annual dilated eye exams for people with diabetes and a provider communication tool. The Collaborative is now discussing evaluation of these completed initiatives and planning ongoing efforts, such as distribution of a new educational tool about eye disease.
- **Chronic Disease Self-Management Program:** Living Well with Chronic Conditions is an evidence-based self-management program from Stanford University for people with chronic diseases, including diabetes. The Collaborative is discussing ways to increase patient access to this chronic disease self-management program.
- **Cardiovascular Risk Factors:** The Wisconsin Heart Disease and Stroke Prevention Program published a Cardiovascular Care Performance report in 2007 in partnership with the Wisconsin Collaborative Diabetes Quality Improvement Project to highlight HEDIS® cardiovascular care performance measures for the past several years. Collaborators are currently working to identify new initiatives to improve blood pressure control.
- **Kidney Disease:** The Collaborative is involved in efforts to increase reporting of estimated Glomerular Filtration Rate (eGFR) by Wisconsin laboratories and is supporting efforts toward a statewide Chronic Kidney Disease Task Force.
- Ongoing collaboration is vital and collaborators continue to work together on these and other initiatives to improve the quality of diabetes care in Wisconsin.

Technical Specifications:

Measuring the Quality of Diabetes Care and Understanding the Differences between Commercial Population: HEDIS® Measures and Medicaid/SCHIP Population: MEDDIC-MS Measures

In 2007, Wisconsin Collaborative Diabetes Quality Improvement Project collaborators decided quality improvement initiatives from the project likely impact both the **commercially-insured** and the **Medicaid/State Children's Health Insurance Program (SCHIP)** populations and decided to include Medicaid Encounter Data-Driven Improvement Core Measure Set (MEDDIC-MS) diabetes care data. It is important to recognize that the measures used to evaluate quality of diabetes care differ between the HEDIS® and MEDDIC-MS groups, so comparisons should be made with those differences in mind.

Important points to remember about these two data sets:

- Different quality improvement measures are used for Wisconsin's commercially-insured and Medicaid/SCHIP populations. While the measure sets target some of the same clinical services, measure specifications and the populations themselves differ and direct comparisons ***cannot*** be made. Despite these differences, both sets of measures show improvement in the quality of diabetes care in Wisconsin.
- Comparing Medicaid managed care populations to commercially-insured populations may not yield valid comparative results due to the demographic, cultural, socioeconomic and other differences in the populations served, even if ostensibly identical measures were used.
- Despite these differences, the Collaborative partners strongly feel the Wisconsin Collaborative Diabetes Quality Improvement Project has resulted in improvement and impacted both the commercially-insured and Medicaid/SCHIP populations.

Commercial Population: HEDIS® Measures

To evaluate the quality of diabetes care in Wisconsin's commercially-insured population, collaborators chose the Health Plan Employer Data and Information Set (HEDIS®) Comprehensive Diabetes Care measures, developed by the National Committee for Quality Assurance (NCQA). The NCQA uses HEDIS® data to accredit HMOs and to evaluate the quality of care regionally and nationally.

NCQA's programs are voluntary, but HEDIS® measures are widely used to evaluate the quality of care provided to the commercially-insured population. In 2005, collaborators submitted HEDIS® data for nearly 100% of Wisconsin's commercially-insured population. Because collaborators already collect this data, it was readily available for the Collaborative to use.

HEDIS® measure definitions are standardized, specific, and audited by third party auditors using an NCQA-designed process. Standardization allows comparison of plans' performance with each other, regionally, and nationally. Clear specifications allow direct comparisons, offer standardized definitions for data collection, and allow examination of trends in the group's performance.

HMOs can choose whether to publicly report their HEDIS® data. Because some collaborators do not publicly report their data, the University

of Wisconsin Population Health Institute provides confidential data analysis and reporting of plans' HEDIS® data. By protecting confidentiality, collaboration is encouraged between health plans that are competitors in other settings.

HEDIS® Comprehensive Diabetes Care measures apply to people with diabetes aged 18-75 years. The population with diabetes is defined using pharmacy and claims/encounter data. For HEDIS® measures, health plans can submit administrative data or hybrid data. Administrative data comes from electronic records of services, such as insurance claims or registration systems. Hybrid data comes from a random sample of the patient population and allows claims data to be supplemented with medical records data. HEDIS® Comprehensive Diabetes Care measures are usually reported as hybrid data. Use of the hybrid method may lead to different outcomes than administrative data and measures dependent upon lab values or vital signs must be done with medical record review in most clinical settings.

Medicaid and SCHIP Population: MEDDIC-MS Measures

Wisconsin uses the Medicaid Encounter Data-Driven Improvement Core Measure Set (MEDDIC-MS) to evaluate the quality of care provided to the Medicaid/State Children's Health Insurance Program (SCHIP) population. MEDDIC-MS is a set of automated, standardized performance measures that has been approved for use by the Centers for Medicare and Medicaid Services (CMS). MEDDIC-MS has also been recognized by the Agency for Healthcare Research and Quality for inclusion in the National Quality Measures Clearinghouse, and has been approved for health plan accreditation by the Utilization Review Accreditation Commission (URAC) and by the Accreditation Association for Ambulatory Health Care (AAAHC). While HEDIS® measures are widely used to evaluate the quality of care for the commercially-insured population, their use for states' Medicaid/SCHIP populations has been limited and inconsistent nationwide. Wisconsin's Medicaid/SCHIP performance measurement strategy is consistent with national trends.

MEDDIC-MS uses electronic data, such as monthly HMO encounter data and other sources. Medical record review is used for data quality and validity audits and by HMOs to augment encounter data. MEDDIC-MS measures also adjust some of the required periods of continuous health plan enrollment by the member during the measurement period to more accurately reflect the Medicaid population's benefit eligibility and coverage. Annual encounter data validity audits are done by the Wisconsin Department of Health and Family Services and an external quality review organization. MEDDIC-MS was designed to decrease the cost of performance measurement by eliminating high-cost, non-care administrative functions such as paper medical record review and HMO self-reporting of performance data. MEDDIC-MS performance results are calculated by a third party and are available online at: http://www.dhfs.state.wi.us/medicaid7/reports_data/quality_reports/index.htm.

MEDDIC-MS currently has two diabetes care measures, which apply to people with diabetes aged 0-17 years and aged 18-75 years. This report only includes data from people aged 18-75 years. The population with diabetes is defined using pharmacy and claims/encounter data. Encounter data and other electronic sources are used to determine if patients with diabetes meet measure criteria for the two MEDDIC-MS diabetes care measures.

The Wisconsin Collaborative Diabetes Quality Improvement Project highlights an extraordinary level of cooperation among diverse, competitive health maintenance organizations to improve diabetes care in Wisconsin. Collaboration is key to this project's successes. This collaborative model may serve as the springboard for the expansion to other statewide quality improvement initiatives.

We would like to recognize the following organizations for their interest and participation in this project: Abri Health Plan, Anthem Blue Cross and Blue Shield, APS Healthcare, Arise Health Plan, Aurora Advanced Healthcare, Dean Health Plan, Inc., Great Lakes Inter-Tribal Council, Inc., Group Health Cooperative of Eau Claire, Group Health Cooperative of South Central Wisconsin, Gundersen Lutheran Health Plan, Health Tradition Health Plan, Humana, Inc., iCare Independent Care Health Plan, Managed Health Services, Marshfield Clinic/Family Health Center, Medica Health Plans, Medical Associates Health Plan, MercyCare Health Plans, Network Health Plan, Physicians Plus Insurance Corporation, Security Health Plan of Wisconsin, ThedaCare, UnitedHealthcare of Wisconsin, Inc., and Unity Health Plans Insurance Corporation.

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The Wisconsin Collaborative Diabetes Quality Improvement Project
is a collaborative partnership of the
Wisconsin Department of Health and Family Services, Division of Public Health,
Bureau of Community Health Promotion, Diabetes Prevention and Control Program.

For questions or to obtain a comprehensive summary concerning this project contact:
Wisconsin Department of Health and Family Services
Division of Public Health
http://dhfs.wisconsin.gov/health/diabetes/hmo.htm

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